

December Mixed Waste Subgroup Highlights

The Hanford STCG Mixed Waste (MW) Subgroup met on December 9, 1999 in the EESB Stampede Room at 1:00 p.m.

Scott Petersen (BHI) presented information on the results of a demonstration conducted in the 300 Area burial grounds. A number of drums containing depleted uranium mixed with oil, PCB and other heavy metals were vitrified ex situ by Geosafe. The waste is in paint buckets surrounded by soil inside the drums. Four electrodes were placed in the drum with thermocouples for monitoring. A HEPA filter system to treat the offgases was also included as part of the treatment equipment. Inside the drum, after vitrification, a glass monolith that looks like obsidian was left with soil around it. Testing was done on the glass and all TCLP limits were very low. In addition the uranium was found to be distributed evenly throughout the glass. A final report is being prepared that will examine the cost effectiveness of vitrification versus the use of sorbents to treat the oil mixture. After vitrification all the depleted uranium was found to be encapsulated inside the glass. The use of this mobile vitrification unit is more expensive than the ATG melter will be. ATG will have MW treatment available next fall at the earliest. There are more than 1500 drums of this waste to be treated and it is not possible to treat them in situ and leave them in the field. All subgroup members will receive a copy of the demonstration final report when it is finished.

The MWFA will be receiving back most of the Boxed Waste Assay System (BWAS) certification money that they sent us. Robotics work that PNNL will be performing for the MWFA will be funded with \$50K of the money this year. The BWAS certification effort was not able to proceed due to a lack of matching funds from Hanford.

The use of tectonite to treat salt wastes at the 200 Area Effluent Treatment Facility (ETF) is still being examined. The ETF now needs to worry about technetium in the waste stream also. A plan on how to proceed is being put together now and will be ready early next year.

Sharon Bailey, PNNL, will be leading the new robotics effort that will focus on the need for handling the long-length equipment from the tank farms as well as other oversized items at Hanford. The MWFA will provide \$50K while the Robotics Cross-Cutting Focus Area will also provide some assistance. Inventory data is being gathered with Larbi Bounini's help by Sharon to begin to scope out the problem on-site.

For the last two days representatives from the Nuclear Materials Focus Area (NMFA) were at Hanford holding meetings. Larbi Bounini met with them on Tuesday. The new NMFA was originally the Pu FA but has now expanded their

scope. Spent Nuclear Fuel (SNF) may be in the scope of the NMFA but that has not been determined yet. After the meetings it looks like some of Hanford's SNF needs will fall into the D&D Focus Area and some into the NMFA. Larbi also discussed the MW need involving the disposition of 12 drums of Pu-238 with the NMFA representatives. They will work with Larbi to see if there is any use for the Pu anywhere else in the DOE Complex.

The MWFA is holding their FY2000 end-user review meeting on February 8-10 in Salt Lake City. Mark French, DOE, will be attending from Hanford as he is on the TRU panel. A discussion ensued about the need for Hanford to get before the MWFA to argue for funding to solve our needs. The agenda for this meeting is posted on the MWFA web site at <http://wastenot.inel.gov/mwfa/>

Bill Bonner reported that PNNL sent a proposal to the MWFA in November dealing with a unique system for hydrogen getting in transportation packages. It looks promising that PNNL will receive funding for this work. All subgroup members received a copy of this proposal last month.

Mixed Waste Subgroup Meeting Attendees – 12/09/99

Bill Bonner	PNNL	372-6263
Tina Masterson-Heggen	Ecology	736-5701
Scott Petersen	BHI	372-9126
Ken Quigley	WMH	376-7779
Greg Sinton	DOE-RL	373-7939
Jim Sloughter	FDH-TM	375-2413
Nancy Uziemblo	Ecology	736-3014
Steve Weakley	PNNL	372-4275
Rick Wible	DOE-RL	372-4776